2. The prefixes *p, mp, f,* are all phonetic variations of the one original *m.* This is the *m,* of pronominal origin, that plays so conspicuous a part as a formative prefixed letter in the Se. languages, forming nouns from verbs. Thus the Aram. (cf. Ges. Gr. § 84, II. 14) forms the infinitive of the verb by it, and (Isenberg, Amh. Gr. 62) in Amh. "the infinitive or verbal substantive is formed by the prefixion of *ma* to the simple form." Dillmann (Eth. Gr. § 113) says: "dagegen ist der in allen Semitischen Sprachen vielgebrauchti Vorsaz *ma* im Sinne von *der, welcher,* oder *das, was* (der Fragewurzel § 63 entstammerd), auch im Aeth. überaus stark verbreitet um Aussagewörter, näbur Participia mit participähnlichen Adjectiven, und Sachwörter abzuleiten." Like Mg. *mp,* My. *pa,* this Eth. *ma* forms the verbal noun denoting the agent, Dillm. § 114. And like Mg. *f,* My. *p,* this Eth. *ma* forms nouns denoting the instrument, vessel, production, thing of any kind, action, manner of the action, Dillm. § 115.

§ 13. The foregoing discussion covers a good deal, but not the whole of the ground.

Corrections—

I. § 25. The comparison between *tomi* and *tome* is given up.

II. § 11, 3. It should have been stated that Sumatra *sakoorang,* 9, is perhaps from *sa,* 1, and *koorang,* "less."

Art. II.—*On the Fungi Growing in Mines.*

By Henry Thomas Tisdall, F.L.S.

[Read March 10, 1887.]

Part I.

The northern portion of the district between the River Thompson and the River M'Allister, in Gippsland, is covered with a series of hills, ranging from 1000 to 3000 feet above the level of the sea. These hills form three main ridges running northward, and culminating in Mounts Aberfeldy and Useful.

Geologically speaking, it is all of upper silurian formation, the stratification showing shales, sandstones, alternating with layers of hard diorite and quartz. During a trip with Mr. Reginald Murray, he pointed out the horizontal layers of basalt overlying the almost vertical rocks, Mount Useful, Mount Aberfeldy, Fullarton's Spur; in fact, nearly all the higher mountains in the district are covered in this manner, while the lower hills show no trace of later volcanic action. Masses of orthocerate limestone are found in the basin of the River Thompson. One enormous mass, over 200 feet thick, rises out of the Deep Creek.

Veins of quartz abound everywhere, and in some places it becomes auriferous. Cohen's reef is a splendid specimen of these auriferous veins; like the rest of the rocks in the district, the strike of this reef trends 20° west of north, and it has a westerly underlie. The lode itself is very rich in minerals, iron and arsenical pyrites abound, and for years it yielded an average of 2 ozs. to the ton. The total quantity of gold obtained has already reached nine tons. When first discovered, the gold-bearing stone was at the surface, but northwards it dips so much that long tunnels had to be driven, and shafts sunk in order to follow its course. In the Long Tunnel, for instance, the adit level was commenced about 100 feet above Stringer's Creek; it is driven in about 800 feet, principally through hard diorites intersected with occasional veins of quartz; at the end of the tunnel a large chamber was excavated about 100 feet long by 40 feet wide. Here are placed the pumping and winding engines, worked entirely by compressed air, obtained through iron pipes from an immense pneumatic engine outside. The shaft is sunk in the middle of the chamber, and has been opened out at every hundred feet in order to catch the ever-dipping lode. They are opening out now at the nine hundred feet level. The plan adopted for opening a level is to drive a tunnel from the shaft until it cuts the lode, then work upwards to the next level, removing everything between the hanging wall and the other side. This varies in thickness from five to fifty feet, the empty space is then filled up with mullock. The tunnels in the various levels are lined with round timber, about two feet in diameter, placed vertically a few feet asunder. The logs on each side of the tunnel are kept apart by cap pieces of the same size, heavy slabs, placed horizontally, reach from one set of timber to the next, thus covering both walls and ceiling with wood. In the older

and unused tunnels this timber is covered with fungoid growths. Masses of white silky hyphomycetes hang from the roof, shaped like stalactites, and often reach four or five feet in length. The timber used in the mine consists chiefly of Eucalyptus Sieberiana, E. Capitellata, E. Obliqua, E. Amygdalina, E. Viminalis; the first of these, E. Sieberiana, is by far the best; it lasts many years. It is remarkable to see the great varieties of colours assumed by the fungi in the mines, when we consider that they never receive any light from the sun. White is certainly the prevailing hue, but black, red, scarlet, delicate pink, and all shades of brown and yellow, are quite common. An instance of the rapidity of growth of this vegetable product, came under my notice whilst in Walhalla. The manager had occasion to have a plat cleared of timber and well scraped at 12 o'clock midnight, at 6 next morning he was astounded at finding the whole plat covered with fungi. He immediately sent for me, and I found that not only were they fully grown, but the spores perfectly ripe. It was an Agaricus (Psathyrella). Berkeley gives wonderful instances of the rapid growth of fungi, and Dr. Lindley says that the cells of the Lycoperdon giganteum multiply at the extraordinary rate of 60,000 million in a minute. The growth of fungi, even when deprived of light is exemplified by Dr. Badham's story of a gentleman placing a cask of wine in a cellar by itself for three years; the cask leaked; a fungus sprung up, and grew to such a size that when the cellar was opened it was completely filled by this winebibbing vegetable, the empty cask was found on the top of the fungus, pressed closely against the roof. Dr. Carpenter mentions that the paving stones in the town of Basingstoke were completely lifted out of their places by the growth of Agarics underneath. The most noticeable plant in the mine is the Hyphomycetes already mentioned; it hangs down from the roof, sometimes by a narrow stem formed of loose fibres, then swells out very much, finally tapering towards the end. It is entirely composed of very fine silky fibres, interwoven so as to form a kind of fleece. So watery are these fungi that, having dried one five feet long and eighteen inches in diameter, it just weighed one ounce. On submitting a piece to the microscope, very small transparent cells may be perceived fastened like tiny nobs on the hairs, these are the spores, and they fall off in such quantities that the air is quite full of them; I feel convinced that the stifling suffocating

feeling, which comes over any one that breathes the atmosphere of the tunnel for some time, is due to their presence. A curious species of Cantharellus is not uncommon, it is of a brownish-yellow, tinged with a delicate green. In the dark corners behind the posts, bright yellow patches may be perceived; these are polyporei. A very pretty Agaricus (Mycena) is found at the foot of partly decayed posts, it grows on the dust which crumbles off. In a future paper I propose to deal more systematically with this subject.

Art. III.—*Notes on the Occurrence of Glaciated Pebbles and Boulders in the so-called Mesozoic Conglomerate of Victoria.*

By E. J. Dunn, F.G.S.

[Read May 12, 1887.]

At Wooragee, near Beechworth, there occurs a conglomerate of peculiar character. In a base of fine clay are distributed in a heterogenous manner, well rounded pebbles and boulders of many varieties of schist, quartz-rock, sandstones, shales, granite, agate, jasper, porphyry, &c., and also angular and sub-angular fragments and masses of rock.

The approximate area of this conglomerate was communicated to the Mining Department in 1871. The depth is not known, but in the very early days of gold mining in this neighbourhood, a shaft was sunk 100 feet into it, at Magpie Swamp, without piercing the underlying rock. This conglomerate rests either upon granite or silurian beds. Outliers of similar conglomerate occur to the N.W. of El Dorado; at various points on the road between Wangaratta and Kilmore; and are also mentioned by Mr. R. A. F. Murray, in the Geological Survey Progress Report for 1884, as existing at Bacchus Marsh, at the Barrabool Hills, and in South Gippsland. In this report, a glacial origin is suggested, as best explaining the peculiarities of this conglomerate, but no distinct striations had been observed in the pebbles.